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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,371	01/25/2007	Yoshifumi Kato	5000-5306	9713
85775 7590 04/03/2009 Locke Lord Bissell & Liddell LLP Attn: IP Docketing Three World Financial Center New York, NY 10281-2101				
EXAMINER				
WON, BUMSUK				
ART UNIT		PAPER NUMBER		
2889				
NOTIFICATION DATE		DELIVERY MODE		
04/03/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptopatentcommunication@lockelord.com

# Office Action Summary

**Application No.**

10/574,371

**Applicant(s)**

KATO ET AL.

**Examiner**

BUMSUK WON

**Art Unit**

2889

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date 9/14/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

Claims 1 and 2 are objected to because of the following informalities:

Regarding claim 1, "non light emitting portion" in line 6 should be "the non light emitting portion. Appropriate correction is required.

Regarding claim 2, "non light emitting portion" in line 2 should be "the non light emitting portion. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the term "can" makes the limitation following the term unclear whether the EL element emits light or not. Claims 2-16 are rejected due to claim dependency.

Regarding claim 1, the limitation of "a desired state" is unclear because the term is a relative term which renders the claim indefinite. The term "desired state" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claims 2-16 are rejected due to claim dependency.

The term "higher volume resistivity" in claims 3 and 4 is a relative term which renders the claim indefinite. The term "higher volume resistivity" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

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Regarding claim 6, the limitation of "the area occupied by the non-light emitting portion per unit area is greater in a region with a higher rate at which the luminance of the electroluminescence element emitting light is to be reduced compared to a state in which the non-light emitting portion is not provided" is unclear as to what areas are being compared.

Regarding claim 7, the term "can" makes the limitation following the term unclear whether the EL element emits light or not. Claims 8-10, 13, 15 and 16 are rejected due to claim dependency.

Regarding claims 11 and 12, the term "can" makes the limitation following the term unclear whether the EL element emits light or not.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kenichi (JP 10-50481) which is cited in the IDS.

Regarding claim 1, Kenichi discloses an electroluminescence element (figure 1a and 1b) which emits light at least by application of a voltage to a pair of electrodes (2 and 5), comprising: a light emitting portion (figure 1b where shadowed) and a non-light emitting portion (figure 1b where non shadowed), wherein the light emitting portion and non-light emitting portion are provided for bringing the luminance distribution of the element into a desired state (figure 1b).

Regarding claim 5, Kenichi discloses the light emitting portion and the non-light emitting portion are provided so that the central part (the area where 4 is located) of the element is brighter than other parts (the area where 4 is not located) as a luminance distribution of the element.

Regarding claim 7, Kenichi discloses the electroluminescence element is an organic electroluminescence element (paragraph 21) in which at least an organic layer (3) which emits light by application of a voltage is held between the pair of electrodes (2 and 5).

Regarding claim 10, Kenichi discloses the non-light emitting portion is constructed by modifying the organic layer to be incapable of emitting light (figure 1a, existence of layer 4).

Regarding claim 11, Kenichi discloses the electroluminescence element is an organic electroluminescence element (paragraph 21) in which an organic layer (3) which emits light at least by application of a voltage is held between the pair of electrodes (2 and 5), and the light emitting portion is constructed by providing an electron injection layer (4) between a cathode (5) of the pair of electrodes and the organic layer (3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenichi.

Regarding claim 2, Kenichi does not specifically disclose the light emitting portion and non-light emitting portion are provided so that the luminance distribution is substantially uniform as a whole.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the luminance distribution is substantially uniform as a whole in the device disclosed by Kenichi, for the purpose of enhancing performance of the device by having uniform luminance distribution.

Regarding claim 14, Kenichi does not specifically disclose the electroluminescent element is an inorganic electroluminescent element.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have inorganic electroluminescent element instead of organic electroluminescent element disclosed by Kenichi, for the purpose of reducing manufacturing cost of the element.

Claims 8, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenichi in view of Yutaka (JP 2000-082588) which is cited in the IDS.

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Regarding claim 8, Kenichi does not specifically disclose the non-light emitting portion is constructed by providing a part made of material having a work function larger than that of a material of a cathode of the pair of electrodes between the cathode and the organic layer.

Yutaka discloses a light emitting element using lower work function material in order to decrease current thereby reducing emitting light (paragraph 9), for the purpose of effectively controlling light output of the device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a light emitting element using lower work function material in order to decrease current thereby reducing emitting light as disclosed by Yutaka in the device disclosed by Kenichi, for the purpose of effectively controlling light output of the device.

Regarding claim 9, Kenichi does not specifically disclose the non-light emitting portion is constructed by providing a part made of material having a work function smaller than that of a material of an anode of the pair of electrodes between the anode and the organic layer.

Yutaka discloses a light emitting element using lower work function material in order to decrease current thereby reducing emitting light (paragraph 9), for the purpose of effectively controlling light output of the device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a light emitting element using lower work function material in order to decrease current thereby reducing emitting light as disclosed by Yutaka in the device disclosed by Kenichi, for the purpose of effectively controlling light output of the device.

Regarding claim 12, Kenichi discloses the electroluminescence element is an organic electroluminescence element (paragraph 21) in which an organic layer (3) which emits light at least by application of a voltage is held between the pair of electrodes (2 and 5).

Kenichi does not specifically disclose the light emitting portion is constructed by modifying a predetermined area of an anode of the pair of electrodes to have a work function larger than the work function of other areas of the anode.

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Yutaka discloses a light emitting element using lower work function material in order to decrease current thereby reducing emitting light (paragraph 9), for the purpose of effectively controlling light output of the device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a light emitting element using lower work function material in order to decrease current thereby reducing emitting light as disclosed by Yutaka in the device disclosed by Kenichi, for the purpose of effectively controlling light output of the device.

Claims 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenichi in view of Yoshikazu (JP 11-273869) which is cited in the IDS.

Regarding claim 13, Kenichi does not specifically disclose the organic layer is provided on only the area which is the light emitting portion.

Yoshikazu discloses a light emitting device (figure 8f) having the organic layer (85) is provided on only the area which is the light emitting portion, for the purpose of effectively controlling output of the light.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an organic layer is provided on only the area which is the light emitting portion as disclosed by Yoshikazu in the device disclosed by Kenichi, for the purpose of effectively controlling output of the light.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenichi in view of Seki (US 2005/0264182).

Regarding claim 15, Kenichi does not specifically disclose the non-light emitting portion is constructed by providing an insulating portion on at least a part of the area between the pair of electrodes.

Seki discloses a display device (figure 20) having a non-light emitting portion (the area where RGB is not located) is constructed by providing an insulating portion 112) on at least a part of the area between the pair of electrodes (12 and 111), for the purpose of effectively controlling output of the light.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a non-light emitting portion is constructed by providing an insulating portion on at least

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a part of the area between the pair of electrodes as disclosed by Seki in the device disclosed by Kenichi, for the purpose of effectively controlling output of the light.

Regarding claim 16, Seki discloses the electroluminescence element (figure 20) is formed on a substrate (2), and light reflection layers (113) are provided at positions between the substrate (2) and a transparent electrode (111) corresponding to the insulating portions. The reason for combining is same as claim 15.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BUMSUK WON whose telephone number is (571)272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bumsuk Won/  
Examiner, Art Unit 2889